Filing Date: March 30, 2004

itle: CALIBRATION AND TESTING ARCHITECTURE FOR RECEIVERS

## IN THE CLAIMS

Please amend the claims as follows.

- 1. (Cancelled)
- 2. (Currently Amended) The apparatus of claim [[1]] 12, wherein the comparison unit includes a single comparator coupled to the output of the final stage, the output to provide a signal representative of a received signal at an input to the receiver channel.
- (Currently Amended) The apparatus of claim [[1]] 12, wherein the controller is adapted to decouple from the receiver channel to characterize performance of the receiver channel.
- 4. (Cancelled)
- 5. (Currently Amended) The apparatus of claim [[1]] 12, wherein the apparatus is a portable wireless receiver.
- 6. 7. (Cancelled)
- 8. (Currently Amended) The apparatus of claim [[7]] 12, wherein each calibration circuit is assigned to one stage of the multiple stages; the multiple stages [[being]] are a sequence of filter stages in the receiver channel.
- 9. (Cancelled)
- 10. (Currently Amended) The apparatus of claim [[6]] 12, wherein the multiple calibration circuits and the controller are adapted to decouple from the receiver channel.
- 11. (Cancelled)

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## 12. (Previously Presented) An apparatus comprising:

multiple calibration circuits to calibrate multiple stages in a receiver channel; and
a controller coupled to an output of a final stage of the multiple stages, the controller to
control each of the multiple calibration circuits, wherein the controller includes:

a stage selection circuit to sequentially calibrate each stage of the multiple stages, wherein each of the calibration circuits is assigned to a separate one of the multiple stages:

a comparison unit coupled to the final stage to evaluate a received signal propagating through the receiver channel;

multiple registers coupled to the stage selection circuit, each register associated with a separate one of the multiple stages, each register to hold a signal to provide DC offset calibration to its associated stage; and

a modulator to provide each register with its signal to provide DC offset calibration to its associated stage, the modulator responsive to an output of the comparison unit.

- 13. (Currently Amended) The apparatus of claim [[11]] 12, wherein the comparison unit is adapted to compare differential intermediate versions of the received signal.
- 14. (Currently Amended) The apparatus of claim [[6]] 12, wherein the controller is reconfigurable to test the receiver channel.

## 15. (Previously Presented) An apparatus comprising:

multiple calibration circuits to calibrate multiple stages in a receiver channel; and
a controller coupled to an output of a final stage of the multiple stages, the controller to
control each of the multiple calibration circuits, wherein the controller is reconfigurable to test
the receiver channel and the controller includes:

a stage selection circuit to select one or more of the multiple stages to receive a test signal;

multiple registers, each register associated with a separate one of the multiple

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stages to provide its associated stage with its test signal, each register responsive to the stage selection circuit;

a modulator having a test enable input and test signal circuits to provide each register with its test signal.

16. (Currently Amended) The apparatus of claim 15, wherein the apparatus includes A-system comprising:

a substantially omnidirectional antenna to receive a signal for the receiver channel; and a bandpass filter coupled to the antenna; and

a receiver channel having multiple stages to convert the signal:

multiple calibration circuits to provide calibration to the multiple stages; and

a controller coupled to an output of a final stage of the multiple stages, the controller coupled to each of the multiple calibration circuits to control each of the multiple calibration circuits

17. (Currently Amended) The system apparatus of claim [[16]] 15, wherein the controller includes a single comparator coupled to the final stage of the multiple stages in the receiver channel.

18. (Currently Amended) The system apparatus of claim [[16]] 15, wherein the controller includes a stage selection circuit is configured to sequentially calibrate each stage in the multiple stages, wherein each of the calibration circuits is assigned to a separate one of the multiple stages.

19. (Currently Amended) The system apparatus of claim [[16]] 15, wherein the multiple calibration circuits and the controller are adapted to decouple from the receiver channel.

20. (Cancelled)

- 21. (Currently Amended) The system <u>apparatus</u> of claim [[16]] <u>15</u>, wherein the system <u>apparatus</u> is a portable wireless communication system.
- 22. 31 (Cancelled)